

Amendments to the Claims

The following listing of claims replaces all previous versions, and listings, of claims in the present application.

1. (Original) A pressure sensor comprising:
a case having an environmental pressure introduction port;
a sensor element unit disposed in the case for detecting a pressure based on an environmental pressure introduced into the case through the environmental pressure introduction port; and

a filter attached to the environmental pressure introduction port so that the environmental pressure enters the case after passing through the filter, the filter having a filter surface that is positioned along a gravitational direction when the pressure sensor is used.

B1
2. (Currently Amended) ~~The pressure sensor according to claim 1,~~
A pressure sensor comprising:
a case having an environmental pressure introduction port;
a sensor element unit disposed in the case for detecting a pressure based on an environmental pressure introduced into the case through the environmental pressure introduction port; and

a filter attached to the environmental pressure introduction port so that the environmental pressure enters the case after passing through the filter, the filter having a filter surface that is positioned along a gravitational direction when the pressure sensor is used,

wherein the filter surface of the filter has a convex shape protruding to an outside of the case.

B2
3. (Currently Amended) ~~The pressure sensor according to claim 1,~~
A pressure sensor comprising:
a case having an environmental pressure introduction port;
a sensor element unit disposed in the case for detecting a pressure based on an environmental pressure introduced into the case through the environmental pressure introduction port; and

a filter attached to the environmental pressure introduction port so that the environmental pressure enters the case after passing through the filter, the filter having a filter surface that is positioned along a gravitational direction when the pressure sensor is used,

wherein the environmental pressure introduction port is composed of a plurality of opening portions that are divided by a frame.

B3
4. (Original) The pressure sensor according to claim 3, wherein each of the plurality of opening portions has an elongated shape with a longitudinal direction approximately parallel to the gravitational direction.

5. (Original) The pressure sensor according to claim 3, wherein:

the frame has a protrusion protruding outward from the case; and
the filter is disposed in contact with a distal end of the protrusion to have the filter surface that is convex and to define a gap portion between the frame and the filter for conducting the environmental pressure into the case.

B3
end

6. (Currently Amended) ~~The pressure sensor according to claim 1;~~
A pressure sensor comprising:
a case having an environmental pressure introduction port;
a sensor element unit disposed in the case for detecting a pressure based on an
environmental pressure introduced into the case through the environmental pressure introduction
port; and
a filter attached to the environmental pressure introduction port so that the
environmental pressure enters the case after passing through the filter, the filter having a filter
surface that is positioned along a gravitational direction when the pressure sensor is used,
wherein the environmental pressure introduction port has an opening area equal to or larger than 90 mm².

B4

7. (Previously Amended) A pressure sensor comprising:
a case having an environmental pressure introduction port;
a sensor element unit disposed in the case for detecting a pressure based on an
environmental pressure introduced into the case through the environmental pressure introduction
port; and
a filter attached to the environmental pressure introduction portion so that the
environmental pressure is introduced into the case after passing through the filter, wherein:
the environmental pressure introduction port is divided into a plurality of opening
portions that are covered with the filter.

B5

8. (Original) The pressure sensor according to claim 7, further comprising a frame
dividing the environmental pressure introduction port into the plurality of opening portions.

9. (Original) The pressure sensor according to claim 8, wherein:
the frame has a protrusion protruding outwardly from the case; and
the filter is disposed in contact with a distal end of the protrusion to provide a gap
portion between the filter and the frame for introducing the environmental pressure into the case.

10. (Original) The pressure sensor according to claim 9, wherein:
the environmental pressure introduction port is open in an approximately horizontal
direction; and
the filter disposed in contact with the distal end of the protrusion has a filter surface
that is curved and extends approximately in parallel with a vertical direction,

B5
end

11. (Original) The pressure sensor according to claim 9, wherein:
the frame has first and second protrusions protruding outwardly from the case and arranged in a gravitational direction;
the first protrusion arranged at an upper side of the second protrusion has a protruding height larger than that of the second protrusion; and
the filter is disposed in contact with both first and second distal ends of the first and second protrusions to have a curved filter surface.

B6

12. (Previously Amended) A pressure sensor comprising:
a case having a measurement pressure introduction passage extending in a vertical direction for introducing a measurement pressure and an environmental pressure introduction passage extending in a horizontal direction and having an environmental pressure introduction port that is open in the horizontal direction for introducing an environmental pressure;
a sensor element disposed in the case for detecting the measurement pressure based on the environmental pressure; and
a filter covering the environmental pressure introduction port.

B7

13. (Currently Amended) The pressure sensor according to claim 12, wherein the filter has a filter surface extending in a direction that forms a specific angle with the vertical direction, the specific angle falling in a range of 0 to 45°.

14. (Original) The pressure sensor according to claim 12, wherein the filter has a convex filter surface protruding outward from the case in the horizontal direction.
